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IBM Corporation  
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EXAMINER

SHORTLEDGE, THOMAS E

ART UNIT	PAPER NUMBER
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2654

DATE MAILED: 09/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/933,614

Applicant(s)

BAUER, JOACHIM MANFRED

Examiner

Thomas E. Shortledge

Art Unit

2654

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. This communication is in response to Remarks received 06/13/2005.
2. Claims 1-23 are pending in the application. Claims 1, 15, 19 and 23 are independent. Claims 17-23 have been added.
3. The objections to claims 7-9 have withdrawn in accordance with the new grounds of rejections below.

### ***Response to Arguments***

4. Applicant's arguments, see Remarks, filed 6/13/2005, with respect to the rejection(s) of claim(s) 1-23 under 102(b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Edberg et al. (5,793,381).

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Edberg et al.

As to claim 1, Edberg et al. teach:

A method for converting a first set of elements into a second set of elements, using a computer system providing a translation function for translating a block of elements of a first set into a block of elements of a second set in accordance with a table specifying for each element of said first set either one particular element of the second set or an exception handling element (creating mapping tables from an input text, the mapping tables containing encodings for text element, where the mapping tables are searched for encoding text elements, col. 10, lines 49-56), said function being further provided to interrupt processing whenever an element is processed marked by an exception handling element in said table (applying outputs to the characters based on the context of the character, col. 11, lines 19-22),

splitting said first set of elements into a first subset consisting of such elements getting translated to one particular element of said second set and a second subset consisting of the remaining elements of said first set (creating numerous mapping tables for each target character set of the input, col. 10, lines 65-67);

composing a first table which contains an entry for each of said first set of elements and in which each element belonging to the first subset is assigned to the respective element of the second set and all elements of said second subset are assigned to an exception handling element (creating mapping tables for each target

character set of the input, where the mapping table represent encodings for each character, col. 10, lines 55-67);

composing a second table representing rules according to which an exception handling function translates said elements of said second subset (creating numerous mapping tables, where the mapping table contain output sequence determined by attributes such as direction, context and symmetric swapping state, col. 10, lines 64-67, and col. 11, lines 19-23);

determining a block of data to be converted, whereby said data is formed by elements of said first set (a look-up handler searches the mapping table for target encodings, col. 10, lines 58-60);

providing said first and second table and said determined block of data to said translation function (providing the mapping tables to the look-up handler, col. 10, lines 57-58); and

processing said translation function (using the look-up function to encode the selected characters, col. 10, lines 57-59).

As to claim 2, Edberg et al. teach the first set is formed by characters having a first property and said second set is formed by characters having a second property (creating numerous mapping tables, where each table represent one target character set, col. 10, lines 66-67).

As to claim 3, Edberg et al. teach said first property and said second property are made up by lowercase, uppercase or title case (the mapping tables are created based on the context of the characters, col. 11, lines 20-23. Where context of the characters would contain the case of the characters.)

As to claim 4, Edberg et al. teach converting a first set of elements into a second set of elements is formed by a case conversion (encoding the characters based on the context of the characters, col. 11, lines 20-23. Where the context would include the case conversion).

As to claim 5, Edberg et al. teach first set and said second set are formed by characters encoded in an universal character encoding standard used for representation of text for computer processing (characters are represented by Unicode, col. 10, line 50).

As to claim 6, Edberg et al. teach Unicode standard (col. 10, line 50).

As to claim 7, Edberg et al. teach determining the codes of all uncased characters (creating the mapping tables with the respective codes for the characters, col. 10, lines 63-67), and assigning in the first table to the determined codes of characters an exception handling character (setting a flag if special consideration is needed, col. 11, lines 28-39).

As to claim 8, Edberg et al. teach a first chart listing all codes of characters to be translated and the codes of their mapping into the different cases and a second chart containing a list of conditioned mappings (creating mapping tables, where the mapping tables represent the characters to the translated and their codes mapping the characters based on context, direction and symmetric swapping state, each represented by a different column in the mapping, col. 11, lines 1-25);

taking from the first chart all codes of characters to be translated (encoding the characters from the mapping tables, col. 10, lines 62-65);

determining the codes of characters that have an entry in the second chart (determining characters that are to be translated based on their context, direction or symmetric swapping state, col. 11, lines 20-25);

assigning in the first table to be determined codes of characters an exception handling character (setting a flag if special consideration is needed, col. 11, lines 28-39).

As to claim 9, Edberg et al. teach taking from the second chart all codes, mappings and conditions (creating mappings for the context, direction or symmetric swapping state, col. 11, lines 20-25);

determining the codes of characters in the first chart that have an entry in the second chart (determining characters that are to be translated based on their context, direction or symmetric swapping state, col. 11, lines 20-25);

adding the determined codes of characters and the respective mappings to the second table (adding information about the characters based on their context, direction or symmetric swapping state, col.11, lines 20-25).

As to claim 10, Edberg et al. teach a computer program (a computer program, col. 6, lines 39-40).

As to claim 11, Edberg et al. teach an integrated circuit comprising hardware implementing the steps of claim 1 (an electronic device, (col. 6, line 33), where it would be necessary for an electronic device to include an integrated circuit).

As to claim 12, Edberg et al. teach a device comprising the integrated circuit of claim 11, (an electronic device, (col. 6, line 33), where it would be necessary for an electronic device to include an integrated circuit).

As to claim 13, Edberg et al. teach a computer program for execution in a data processing system comprising computer program code portions for performing respective steps of the method of claim 1 (a computer program for completing the encoding, col. 6, lines 38-40).



As to claim 14, Edberg et al. teach a browser program (a cpu connected to a network, (col. 7, lines 1-3), where it would be necessary to use a browser program to view the material within the network).

As to claim 15, Edberg et al. teach:

A system for converting a first set of elements into a second set of elements, comprising a computer system providing a translation function for translating a block of elements of a first set into a block of elements of a second set in accordance with a table specifying for each element of said first set either one particular element of the second set or an exception handling element (creating mapping tables from an input text, the mapping tables containing encodings for text element, where the mapping tables are searched for encoding text elements, col. 10, lines 49-56), said function being further provided to interrupt processing whenever an element is processed marked by an exception handling element in said table, so that an exception handling function can be executed (applying outputs to the characters based on the context of the character, col. 11, lines 19-22);

a first portion configured to cause the computer system to split said first set of elements into a first subset consisting of such elements getting translated to one particular elements of said second set and a second subset consisting of the remaining elements of said first set (creating numerous mapping tables for each target character set of the input, col. 10, lines 65-67);

a second portion configured to cause the computer system to compose a first table which contains an entry for each of said first set of elements and in which each element belonging to the first subset is assigned to the respective element of the second set and all elements of said second subset are assigned to an exception handling element (creating mapping tables for each target character set of the input, where the mapping table represent encodings for each character, col. 10, lines 55-67);

a third portion configured to cause the computer system to compose a second table representing rules according to which an exception handling function translates said elements of said second subset (creating numerous mapping tables, where the mapping table contain output sequence determined by attributes such as direction, context and symmetric swapping state, col. 10, lines 64-67, and col. 11, lines 19-23);

a fourth portion configured to cause the computer system to determine a block of data to be converted, whereby said data is formed by elements of said first set (a look-up handler searches the mapping table for target encodings, col. 10, lines 58-60);

a fifth portion configured to cause the computer system to provide said first and second table and said determined block of data to said translation function (providing the mapping tables to the look-up handler, col. 10, lines 57-58); and

a sixth portion configured to cause the computer system to process said translation function (using the look-up function to encode the selected characters, col. 10, lines 57-59).

As to claim 16, Edberg et al. teach being used as an Internet server (being used through a network connection, col. 7, lines 1-4).

As to claim 17, Edberg et al. teach one element of the first set has a context dependent relation to one or more elements of the second set, said second table specifying for each of a plurality of contexts, an element of the second set to be used in such context (the characters are represented in their mapping tables by their context, col. 11, lines 20-24).

As to claim 18, Edberg et al. teach one element of the first set has a context dependent relation to one or more element of the second set, said second table specifying, for each of a plurality of context, an element of the second set to used in such context (the characters are represented in their mapping tables by their context, col. 11, lines 20-24).

As to claims 19 and 23, Edberg et al. teach:

In a computer system having a translation function for translating a block of elements of a first set into a block of elements of a second set in accordance with a translation table specifying for each element of the first set either one particular element of the second set or an exception handling element (creating mapping tables from an input text, the mapping tables containing encodings for text element, where the mapping tables are searched for encoding text elements, col. 10, lines 49-56), said translation

function being interrupted and an exception handling function being executed whenever an element being processed is marked by an exception handling element in said translation table (applying outputs to the characters based on the context of the character, col. 11, lines 19-22), a method for converting a first block of data comprising a first set of elements into a second block of data comprising a second set of elements (encoding the characters using the mapping tables, col. 10, lines 57-61), said first set of elements comprising a first subset consisting of such element that are translated to one particular element of said second set and second subset consisting of the remaining elements of said first set (creating numerous mapping tables, each table representing a different set of characters, col. 10, lines 65-67);

providing a first table containing an entry for each of said first set of elements, with each element belonging to the first subset being assigned to the respective element of second set and all elements of said second subset being assigned to an exception handling element (creating mapping tables for each target character set of the input, where the mapping table represent encodings for each character, col. 10, lines 55-67);

providing a second table specifying rules for translating said elements of said second subset (creating numerous mapping tables, where the mapping table contain output sequence determined by attributes such as direction, context and symmetric swapping state, col. 10, lines 64-67, and col. 11, lines 19-23);

processing said first block of data with said translation function, using said first table as a translation table (providing the mapping tables to the look-up handler, col. 10, lines 57-58); and

upon encountering an element marked by an exception handling element in said first table, executing said exception handling function to translate said element in accordance with rules specified by said second table (elements with the table that needed to be encoded are linked to a mapping table where rules related to context, direction or symmetric swapping state, col. 11, lines 20-25).

As to claim 20, Edberg et al. teach at least one element of the first set has a context dependent relation to one or more elements of the second set, said second table specifying, for each of a plurality of contexts, an element of the second set to be used in such context (the mapping tables used to encode the character sets contain information and rules related to the characters, such as the context of the characters, col. 11, lines 19-23).

As to claim 21, Edberg et al. teach the translation function is implemented by a machine instruction of said computer system (a computer program implements the translation, col. 6, line 36. Where it would be necessary for computer programs to contain machine instructions, so the programs are able to correctly communicate with the hardware).

As to claim 22, Edberg et al. teach a computer program product stored on a computer usable medium, comprising computer readable program means for causing a computer to perform the method of claim 19 (a computer system with a computer program for carrying out the encoding process, col. 6, lines 32-42. Where it would be necessary for the computer program to be stored on a memory of the computer system).

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas E. Shortledge whose telephone number is (571)272-7612. The examiner can normally be reached on M-F 8:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (571)272-7602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TS  
09/07/2005

  
RICHEMOND DORVIL  
SUPERVISORY PATENT EXAMINER